

REMARKS

Upon entry of the present Amendment-C the claims in the application are claims 1-23, of which claims 1, 3, 4, 13 and 14 are independent, and claims 3-12 have been withdrawn from consideration.

Claims 1, 3, 4, 13 and 14 have been amended herein to define the inner frame is located at the side of the passenger's space, while new claims 21-23 have been added and the specification has been amended to provide an express antecedent basis for the amended claim language. New claims 21-23 are directed to the elected invention under consideration by the Examiner.

Applicant respectfully submits that all amendments herein are fully supported by the original disclosure, including Figs. 1 and 11 and the discussion at paragraphs [102] – [155]. Applicant also respectfully submits that the amendments do not introduce any impermissible “new matter” into the application.

The above-identified Office Action has been reviewed, the references carefully considered, and the Examiner's comments carefully weighed. In view thereof, the present Amendment is submitted. It is contended that by the present amendment, all bases of rejection set forth in the Office Action have been traversed and overcome. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claim Rejections – 35 USC 103(a)

1. Claims 1 and 2 have been rejected under 35 USC 103(a) as being unpatentable over Heim et al (US 5,398,4523) in view of Wycech (US 5,844,960). At item 3 of the Office Action, the Examiner has rejected claims 13 and 14 under 35 USC 103(a) as being unpatentable over Heim

in view of Wycech. The Examiner states that Heim discloses most features of the invention as claimed in applicant's claims 1, 2, 13 and 14, that Heim does not disclose the frame having a section of a C-shape; but that Wycech does disclose a frame 202 having a section of a C-shape, whereby it allegedly would have been obvious to a person skilled in the art at the time of the invention to modify the invention vehicle door frame as disclosed by Heim to include the frame having a section of C shape as disclosed by Wycech in order to provide a frame with least weight and maximum strength and to improve the fuel efficiency of the vehicle.

Applicant's Response

Upon careful consideration and in light of the above amendments to claims 1, 13, 14, applicant respectfully submits that the rejection is overcome and that present claims 1, 2, 13 and 14 are clearly patentably distinct over the applied references, because the proposed modification of Heim's vehicle door relative to a select feature of Wycech's reinforced beam is improperly based on a suggestion coming entirely from the Examiner (guided by impermissible hindsight of applicant's disclosure), rather than from any teaching or suggestion which may be fairly gleaned from the references themselves, and because neither of the applied references disclose features of the claimed invention such that any hypothetical combination based on the actual teachings of these references fails to achieve or make obvious the claimed invention.

For example, apart from the fact that Heim does not disclose the inner frame having a C-shaped cross-section (as conceded by the Examiner), Heim also fails to disclose such a frame in which the C-shape opens outwardly of the vehicle, as defined in claims 13 and 14. Instead, Heim's door frame includes a horizontal crossbar 7 which has a closed rectangular shape section,

as shown in his Figs. 1 and 2. On the other hand, although Wycech's bumper 202 may be C-shaped in section, the gap or opening defined by the C-shape extends inwardly of the vehicle, not outwardly as claimed.

Further, Applicant also notes that the component 202 of Wycech referenced by the Examiner is a bumper, not a door frame as alleged by the Examiner. (Col. 9 lines 55-61). As such, persons of ordinary skill in the art would not consider it obvious to use Wycech's bumper structure in Heim's door frame because a bumper has a different structure (more massive to withstand frontal/rear collisions, disposed laterally of the vehicle, etc.) than a door frame/beam, and necessarily functions differently than a door frame/beam, such that the references provide no motivation for the proposed modification. Thus, it would not have been obvious to modify the door beam of Heim such that his door crossbar 7 is modified to have the shape of Wycech's bumper.

Additionally, it is clear that Wycech's bumper structure does not achieve or in any way address a significant advantage achieved by the claimed structure, i.e., the inner frame which has a substantial C-shape section provides the door with sufficient rigidity to withstand the compression, tensile and twist loads in the event of a collision, but also provides a buffer action in order to protect a passenger who bumps against the door during a collision from the full force of the side impact. This is clearly not achieved by Wycech's reinforced bumper structure. Wycech's bumper 202 includes an outer steel shell 202, an ultra high strength inner shell 210 and a layer of structural foam 208 between the panels. Such structure *teaches away from* applicant's claimed invention because the reinforced construction has high strength and would not provide a buffer action to any occupant who may impact against the bumper.

Still further, in an effort to expedite prosecution of the application, applicant has amended

independent claims 1, 13, and 14 better distinguish over the applied references by defining that the inner frame is located at the side of the passenger's space. Such feature is not disclosed or suggested by the applied references.

For all the reasons stated above, the rejections of claims 1, 2, 13 and 14 based on the Heim and Wycech references is believed to be overcome, and thus withdrawal of the rejections is respectfully requested.

2. At item 4 of the Office Action, the Examiner has rejected claims 15-20 under 35 USC 103(a) as being unpatentable over Heim as applied to claims 13 and 14 above in view of ordinary skill in the art (although the rejection actually appears to involve Heim in view of Wycech as applied to claims 13-14, and further in view of ordinary skill in the art because the Examiner's rejection of claims 15-20 references components of Wycech's disclosure). The Examiner states that, regarding claims 15-20, Heim discloses the invention as claimed to include the inner frame 7 includes a pair of flanges 202 (apparently from Wycech) extending from upper and lower portions of the inner frame toward the inside of the opening, and a width of each flange in a vertical direction, a base portion which forms the corresponding upper or lower portion, and a cross section of which is C-shaped, a connecting portion (Fig 22, apparently from Wycech) of connecting a side of the inner frame inside the vehicle with upper and lower leg portions extending from upper and lower end portions of the side toward the outside of the vehicle is curved. However, Heim does not disclose the flange with to be $\frac{1}{4}$ to $\frac{1}{2}$ the width in the vertical direction, the width of the inner frame in a width direction of the vehicle is set at $\frac{1}{6}$ to $\frac{1}{1}$ of a width in the vertical direction of the base portion. Thus, the Examiner alleges it would have been obvious to one having ordinary skill in the art at the time of the invention to make the frame

with the flange width to be $\frac{1}{4}$ to $\frac{1}{2}$ the width in the vertical direction, and the width of the inner frame in a width direction of the vehicle at $\frac{1}{6}$ to $\frac{1}{1}$ of a width in the vertical direction of the base portion, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use to optimize the cost of the product made in light of size, availability, capacity to manufacture, manufacturing technology, transportability, optimize the number of parts, safety and other considerations and still meet the design loads and specifications.

Applicant's Response

Upon careful consideration and again in light of the above amendments to claims 1, 13, 14, applicant respectfully submits that the rejection of claims 15-20 is overcome and that these claims are clearly patentably distinct over the applied references, based on those arguments as applied to claims 13 and 14 above (which are not overcome by the Examiner's references to ordinary skill in the art), and because the applied references coupled with any "ordinary skill in the art" do not achieve or make obvious the vehicle door including the features set forth in claims 15-20.

In this regard, applicant respectfully submits that given the *highly distinct and contrary* functions of the claimed inner frame (which, again, provides both a sufficient rigidity to withstand the compression, tensile and twist loads in the event of a collision, and a buffer action in order to protect a passenger who bumps against the door during a collision), in comparison the Wycech's reinforced bumper (which only provides added strength and rigidity through the reinforcing ultra high strength inner shell and structural foam inner layer), it is not at all a matter of optimizing Wycech's disclosure to achieve the claimed invention, contrary to the Examiner's

allegation. Given the contrary functions achieved by the claimed door and Wycech's reinforced bumper, it is impossible to arrive at the claimed invention including the specific structural features of claims 15-20 by simply optimizing the teachings of Wycech's bumper and somehow applying these to Heim's door.

Also in this regard, applicant notes that the Courts and the Board of Patent Appeals and Interferences (BPAI) have consistently held that, for purposes of establishing obviousness under 35 USC 103, a rejection advanced by an Examiner must rest on a factual basis, with the facts being interpreted without hindsight reconstruction of the invention from the prior art, and that the Examiner may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis. Ex Parte Hamond, 41 USPQ2d 1217, 1220, citing In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1968). It is respectfully submitted that a proper factual basis regarding the alleged obviousness of the claimed vehicle door including the features of claims 15-20 has not been established in view of the references of record or any "ordinary skill in the art".

Based on the foregoing, the rejection of claims 15-20 based on Heim (and Wycech) in view of ordinary skill in the art is believed to be overcome, and thus withdrawal of the rejections is respectfully requested.

Other Matters

The numerous additional references cited by the Examiner on the form PTO-892 attached to the Office Action have been considered by applicant. It is respectfully submitted, however, that these additional references fail to overcome the deficiencies of the Heim and Wycech references

applied in the rejections of claims 1, 2 and 13-20 as discussed above.

New claims 21-23 are believed to be allowable based on the foregoing arguments regarding the merits of claims 1, 13, 14, as well as on the merits of the additional features set forth in the new claims.

Conclusion

Applicant has overcome the rejections set forth in the Office Action; and moreover, applicant respectfully submits that the invention defined by each of the present claims is clearly, patentably distinct over all of the references of record.

The application is now believed to be in condition for allowance, and a notice to this effect is earnestly solicited.

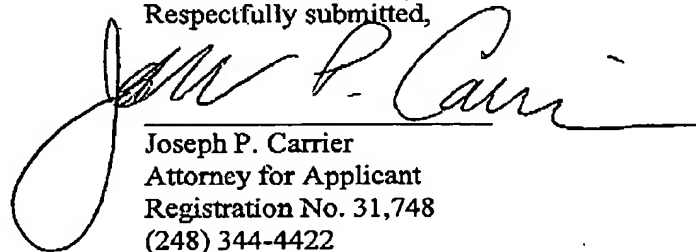
If the Examiner is not fully convinced of all of the claims now in the application, applicant respectfully requests that the Examiner telephonically contact applicant's undersigned representative to expeditiously resolve prosecution of the application.

The Commissioner is hereby authorized to charge \$150.00 to Deposit Account 50-0744 in the name of Carrier, Blackman & Associates, P.C. in payment of the fee for presentation of claims 21-23. A duplicate copy of this sheet is attached.

Favorable consideration is respectfully requested.

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October 7, 2005

Respectfully submitted,


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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being sent via facsimile transmission to the US Patent & Trademark Office, Art Unit 3612, on October 7, 2005.


Anne Marie Carrier

applied in the rejections of claims 1, 2 and 13-20 as discussed above.


New claims 21-23 are believed to be allowable based on the foregoing arguments regarding the merits of claims 1, 13, 14, as well as on the merits of the additional features set forth in the new claims.

Conclusion

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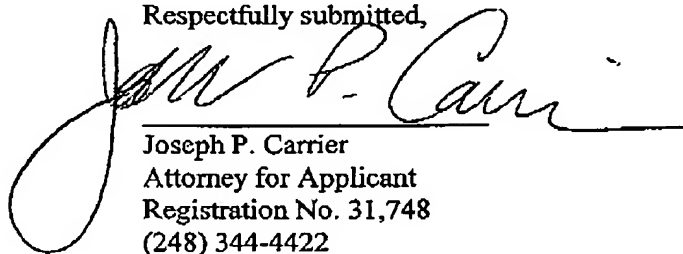
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